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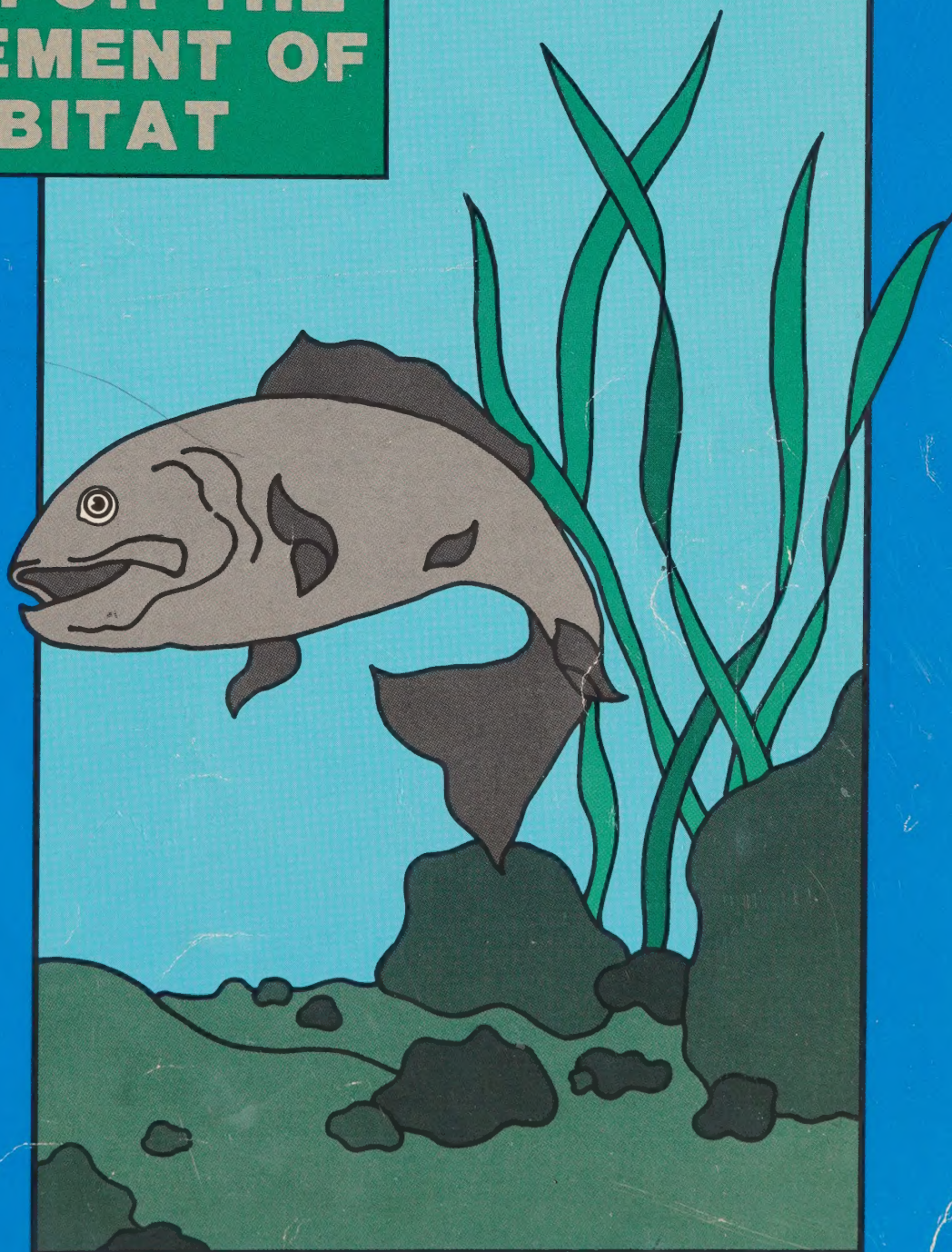
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ARTMENT OF FISHERIES AND OCEANS

POLICY FOR THE MANAGEMENT OF FISH HABITAT



1986

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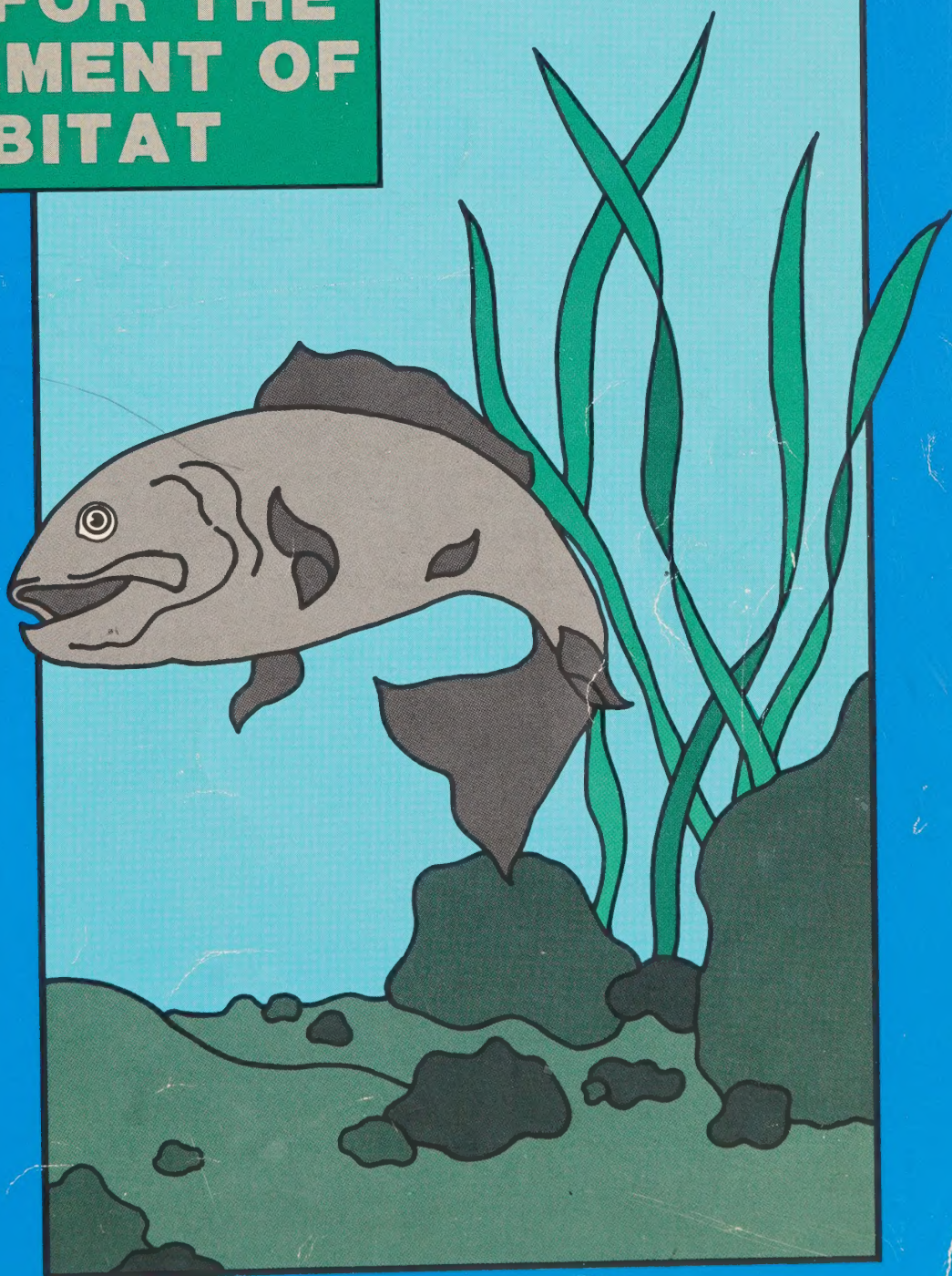
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THE DEPARTMENT OF FISHERIES AND OCEANS

POLICY FOR THE MANAGEMENT OF FISH HABITAT



October, 1986

Canada



**THE DEPARTMENT OF
FISHERIES AND OCEANS
POLICY
FOR THE
MANAGEMENT
OF
FISH HABITAT**

DEPARTMENT OF FISHERIES AND OCEANS
Ottawa, Ontario





FOREWORD

This new policy on fish habitat management is an explicit recognition by the federal government that fish habitats are national assets.

It is, I believe, an ambitious but realistic policy, designed to achieve a Net Gain of habitat for Canada's fisheries resources in a manner that will be of benefit to all users. It does this by providing a comprehensive framework for the conservation, restoration and development of fish habitats and strategies for the implementation of its various components.

The policy is also a blueprint for a common-sense, cooperative approach between the private sector and various levels of government. It reflects, in particular, the willingness of this Minister and this department to work cooperatively with all parties. The policy is itself the result of extensive federal, provincial, territorial and private sector consultation and cooperative effort.

It is, in short, a policy based on a confidence in the ability of Canadians to work together to arrive at solutions to problems and to harness creative energies in order to increase the social and economic benefits derived by Canadians from productive fish habitats and the fisheries resources they support.

I look forward to the continued cooperation of all interested parties in the implementation of this policy.

Tom Siddon, M.P., P.C.
Minister of Fisheries and Oceans

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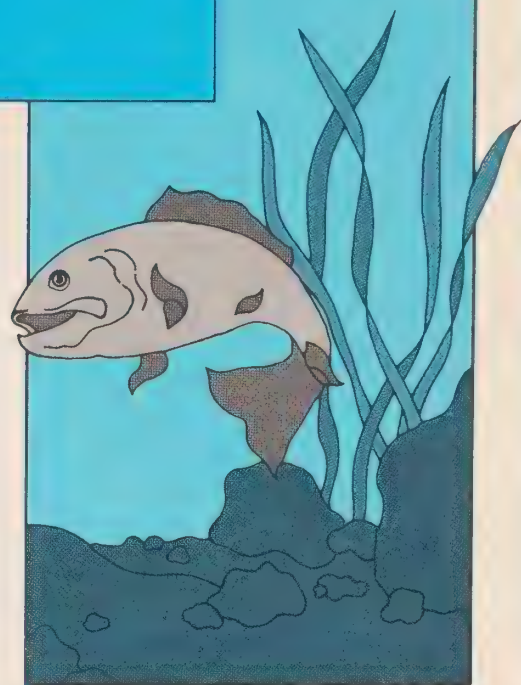


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CHAPTER ONE

A FEDERAL PERSPECTIVE ON FISH HABITAT MANAGEMENT



1.1 Introduction

This document provides Canadians with a statement of the Department of Fisheries and Oceans' policy objectives, goals and strategies for the management of fish habitats supporting Canada's freshwater and marine fisheries. Fish habitats constitute healthy production systems for the nation's fisheries and, when the habitats are functioning well, Canada's fish stocks will continue to produce economic and social benefits throughout the country.

The policy provides objective statements against which the Department can measure its performance in fish habitat management and offers a framework for more consistent administration of the Department's habitat management program. It signals a renewed effort by the Department of Fisheries and Oceans to increase the social and economic benefits derived by Canadians from productive fish habitats and the fisheries resources they support.

In a broader sense, this policy will contribute to the management of human use of the biosphere, so that it may yield the greatest sustainable benefit to mankind.

The Department of Fisheries and Oceans developed this policy framework following public release of a discussion paper in 1983 and of a proposed policy and procedures paper in 1985. In the course of the public discussion that followed, it became clear that an improved approach was needed to manage fish habitat and to consider opposing views before habitat decisions are taken. In particular, it became clear that integrated resource planning, combined with better integration of habitat and fisheries management objectives, must

become more widely applied in fish habitat management.

Under the federal *Fisheries Act*, "fish habitats" are defined as those parts of the environment "on which fish depend, directly or indirectly, in order to carry out their life processes". The *Act* also defines "fish" to include all the life stages of "fish, shellfish, crustaceans, marine animals and marine plants". Accordingly, pursuant to the *Act*, this policy will apply to all projects and activities, large and small, in or near the water, that could "alter, disrupt or destroy" fish habitats, by chemical, physical or biological means, thereby potentially undermining the economic, employment and other benefits that flow from Canada's fisheries resources.

Fish habitats can be damaged in ways both obvious and subtle, and by changes big and small. A multi-million dollar hydro project can take its toll on a spawning run of fish, but so can a poorly-installed culvert under a farm lane. Among the most common threats to fish habitats are those associated with industrial and municipal liquid waste discharges; stream diversions; introduction of silt; barriers to migration; alteration of flow; nutrient imbalances; acid rain and other airborne pollutants; pesticides; and other chemical, physical and biological agents.

Fish are an important part of Canada's renewable resource base. The commercial and recreational fisheries contribute several billion dollars annually to the national economy. Fish and their habitats are also a valuable tourist attraction, generating local income quite apart from fishing activities. In addition, there are social benefits that flow from the fishery resource, such as support for traditional lifestyles in remote communities. Finally, to many Canadians, the simple knowledge that the fish



are there serves as a strong indicator of a healthy environment. With wise management, habitats may be conserved, restored and developed so that the fisheries resource will provide increasing benefits to the nation in perpetuity.

1.2 National Application

The policy will apply to those habitats directly or indirectly supporting those fish stocks or populations that sustain commercial, recreational or Native fishing activities of benefit to Canadians. In addition, Fisheries and Oceans recognizes its responsibility to protect and increase fish stocks and their habitats that have either a demonstrated potential themselves to sustain fishing activities, or a demonstrated ecological support function for the fisheries resources. In accordance with this philosophy, the policy will not necessarily be applied to all places where fish are found in Canada, but it will be applied as required in support of fisheries resource conservation.

Under the *Constitution Act* (1982), the federal government has authority for all fisheries in Canada, and it retains direct management control of fisheries resources in the Atlantic Provinces of Newfoundland, New Brunswick, Nova Scotia and Prince Edward Island; for the marine and anadromous salmon fisheries of British Columbia; for the marine fisheries of Quebec; and for the fisheries of the Yukon and Northwest Territories. In addition, the federal government becomes involved in transboundary situations where undertakings in one province or territory threaten fish habitat in another.

Following references to the Privy Council and several Court decisions, formal agreements were negotiated during the period 1899 and 1930 between the federal government and a number of provinces. As a result, the federal government has made special arrangements concerning day-to-day management for the inland fisheries of Ontario, Manitoba, Saskatchewan and Alberta, and for some fisheries in the provinces of Quebec (where the province manages all freshwater, anadromous and catadromous fisheries), and British Columbia (where the province manages all freshwater species, excepting anadromous salmon). In these six provinces (or parts thereof), federal fisheries legislation is administered by the provincial fisheries management agency, although provincial fisheries regulations must be promulgated by the federal government. Conservation Officers in several provinces are designated as Fishery Officers for purposes of administering the *Fisheries Act*.

The Department recognizes that experienced freshwater fisheries management agencies, with the capabil-

ity to administer statutes and regulations, and to manage fish habitats on behalf of users of the fisheries resource, have evolved in the six provinces (or parts thereof) identified in the preceding paragraph. The federal government will not actively apply this policy in those jurisdictions; rather the provincial agencies concerned will be encouraged to apply it through bi-lateral administrative agreements and protocols which will also clarify roles and responsibilities for the respective parties involved. Also, inter-agency referrals and other forms of federal-provincial cooperation will continue to be used and agreements developed in those other provinces and territories where the Department of Fisheries and Oceans administers fisheries legislation directly.

It follows that the application of this policy by the Department of Fisheries and Oceans will be primarily in freshwaters, estuaries and coastal situations where most damage to fish habitats has taken place and where the risk of future damage is highest. In the marine waters on Canada's continental shelves, the policy will also apply, the main areas of interest being: (1) the surveillance and control of chemical hazards introduced, or that may be introduced, by man's activities, and (2) managing the potential adverse effects of ocean dumping, shipping and oil and gas exploitation activities. The policy will be applied to projects and activities of any scale, large or small, to avoid cumulative losses of habitats that support Canada's fisheries resources.

Within the Department, a national plan and timetable will be developed for a phased program of policy implementation, giving due consideration to regional priorities and program resource requirements for habitat management.

1.3 International Considerations

Fish habitat management policy serves the objectives of more than just the federal fisheries programs in Canada. The habitat management program of the Department of Fisheries and Oceans helps to fulfill Canada's commitment to the United Nations' World Conservation Strategy, part of which calls for "the maintenance of the support systems for fisheries and for the control of pollution".

The Department will continue to address concerns for fish habitat management in international forums whose mandates have a bearing on fish habitat objectives. The International Joint Commission and the Great Lakes Fishery Commission will be supported in addressing bilateral issues that have a bearing on the health of fisheries resources. Advice will be provided, through the Departments of External Affairs and Transport, to the



International Maritime Organization (IMO) and the Marine Environmental Cooperative Agreement (MECA) on the subject of hazardous cargoes at sea, and environmental issues related to marine transport. Furthermore, technical and policy input will be provided by the Department in support of the Canadian position at the London Dumping Convention. The Department will also continue to cooperate with both the Organization for Economic Cooperation and Development (OECD) and the International Council for the Exploration of the Sea (ICES) in their efforts to coordinate international research, monitoring and assessment programs.

The Department will support and provide advice to various international organizations in their efforts to help conserve the global aquatic resources from threats such as radioactive contamination, acid rain, the build-up of carbon dioxide in the atmosphere, and other detrimental climatic alterations.

1.4 Support for Government Priorities

The wise management of fish habitat supporting Canada's productive fisheries will ensure that the socio-economic benefits and employment generated by the fisheries sector are not forfeited by actions in other economic sectors and that the concerns of those other

sectors are taken into account. Direct benefits of the policy will be as outputs from various fisheries activities: sometimes as a source of food; or as wholesome fish caught and sold; or as income and pleasure from the vast amount of recreational fishing taking place in Canada.

Government, private sector and citizen-initiated projects to restore degraded habitats will generate employment opportunities. Furthermore, the Department of Fisheries and Oceans recognizes the potential impact of fish habitat decisions on regional development, industrial development, other resource sectors, and public projects. The Department will consider the interests of other resource users and will strive under this policy to take reasonable, timely and consistent decisions to maintain and improve the productive capacity of fish habitats.

It is recognized that Native peoples could assume a greater role in local fisheries management and environmental protection in future. Through this policy, Fisheries and Oceans offers useful approaches for effective habitat conservation that could be implemented within the context of both Native claims and self-government. The Department is prepared to cooperate with Native groups and the appropriate provincial or territorial fisheries agencies to develop programs, techniques and approaches to improve fish habitat management within their areas of interest.



CHAPTER TWO



THE POLICY

2.1 Policy Objective

NET GAIN OF HABITAT FOR CANADA'S FISHERIES RESOURCES

Increase the natural productive capacity of habitats for the nation's fisheries resources, to benefit present and future generations of Canadians.

Interpretation

1. The Department of Fisheries and Oceans' long-term policy objective is the achievement of an overall **net gain** of the productive capacity of fish habitats. Progress toward this objective can be achieved through the active conservation of the current productive capacity of habitats, the restoration of damaged fish habitats and the development of habitats as depicted in Figure 1 and further described in this chapter. Increases in the productive capacity of fish habitats are considered to be possible for anadromous and certain freshwater and shellfish species in the short-term; but gains through habitat modification for strictly marine species will be more limited in most instances.
2. The habitat programs of the Department of Fisheries and Oceans, assisted by cooperative undertakings with other federal departments, provincial and territorial governments, private industry and non-government groups, will be administered to achieve this policy objective for the nation's fisheries resources through various protection measures

and resource planning initiatives, as outlined in Chapter 3.

3. The strategies for achieving conservation and protection of habitat are described in further detail in the following chapters. Strategies for achieving the restoration and development goals are in the developmental stage, and the Department will cooperate with other agencies and the private sector in further expanding research, technology, and procedures that will contribute to the effective application of the **net gain** policy objective.
4. In accordance with the implementation strategies outlined in Chapter 4, this policy objective is applicable to all threats to the productive capacity of fish habitats, including water pollution, acid rain, biological agents, and any type of physical disruption.
5. Under a 1985 Memorandum of Understanding with Environment Canada, respective responsibilities for the administration of Section 33 of the *Fisheries Act* have been clarified. Under the terms of the Memorandum, the Minister of Fisheries and Oceans continues to be **legally** responsible to Parliament for all sections of the *Act*. For Section 33, Environment Canada continues to administer those aspects dealing with the control of pollutants affecting fish, in cooperation with the Department. Fisheries and Oceans will cooperate with Environment Canada in the establishment of federal priorities for the protection of fish and their habitats from deleterious substances.

2.2 The First Goal

FISH HABITAT CONSERVATION

Maintain the current productive capacity of fish habi-



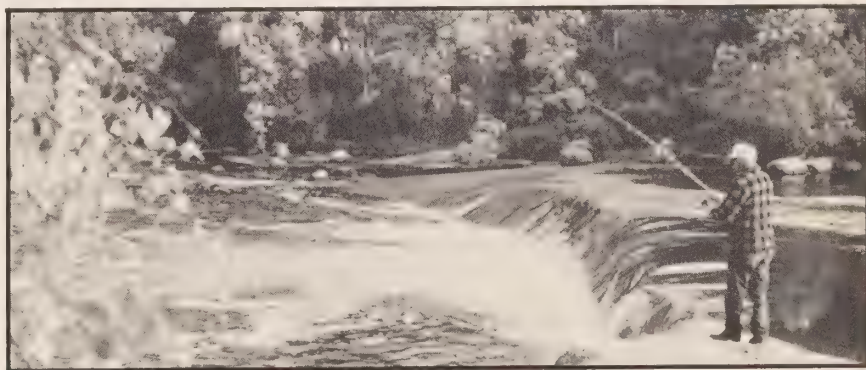
tats supporting Canada's fisheries resources, such that fish suitable for human consumption may be produced.

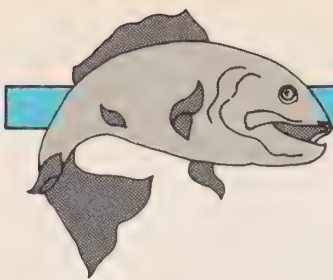
Interpretation:

1. The level of protection given to habitats under this goal will take into consideration their actual or potential contribution to sustaining the nation's fisheries resources, as defined in this policy, and in accordance with local fisheries management objectives, as described in section 3.3.
2. Where there is a risk of potential damage to habitat, the Department will strive to prevent losses of natural fish production areas, in order to produce fish in perpetuity and to help maintain genetic diversity. This will contribute to the Department's fish production goals and reduce the costs associated with constructing and maintaining fish production facilities, and restoring damaged habitats.
3. In accordance with the Protection and Compliance Strategy explained in Chapter 4, the habitat provisions of the *Fisheries Act* will be administered and enforced to control the negative impacts of existing and proposed projects and activities that have a potential to alter, disrupt and destroy habitats. Section 33 of the *Act* contains specific powers to control the release of deleterious substances into fish habitats and is administered by Environment

Canada, in cooperation with Fisheries and Oceans, frequently in close collaboration with provinces.

4. There are limitations respecting the use of the *Fisheries Act* to control widespread activities on an ecosystem-wide basis, such as land use developments and the release of air pollutants. Notwithstanding these limitations, the Department will continue to cooperate with other agencies and other levels of government in an effort to implement resource management procedures on an ecosystem basis.
5. In its efforts to control ocean pollution and the chemical contamination of fish and fish habitats, Fisheries and Oceans will continue to cooperate with and provide criteria for fisheries protection to provinces, territories and a number of federal departments, including Agriculture Canada, Environment Canada, Transport Canada, Energy, Mines and Resources, External Affairs, Indian and Northern Affairs, and the Canada Oil and Gas Lands Administration.
6. The Department will cooperate with and encourage provinces, territories and other land owners and managers, to identify unique and productive habitat areas and to include them within a network of protected areas for the production of fisheries and other natural resources. For marine areas, the





Department will also consider taking direct action to establish sanctuaries for the preservation of living marine resources and associated habitats, consistent with fisheries management objectives and emerging federal government objectives for arctic marine conservation. The Department will also cooperate with and support conservation organizations in the promotion and establishment of protected areas consistent with this policy.

7. The conservation goal will be implemented using the **no net loss** guiding principle, as described in the next section.

2.2.1 *The Guiding Principle:*

NO NET LOSS OF THE PRODUCTIVE CAPACITY OF HABITATS

Interpretation:

1. The **no net loss** principle is fundamental to the habitat conservation goal. Under this principle, the Department will strive to balance unavoidable habitat losses with habitat replacement on a project-by-project basis so that further reductions to Canada's fisheries resources due to habitat loss or damage may be prevented.
2. The principle applies to proposed works and undertakings and it will not be applied retroactively to approved or completed projects.
3. The principle is intended to guide departmental officials and other interested parties, and should not be interpreted as a statutory requirement to be met at all costs and in all circumstances. Professional judgement and common sense applied in an informed, cooperative environment by personnel experienced in habitat management, combined with supportive research, will achieve **no net loss** of productive capacity in the majority of cases.
4. The principle takes into consideration the habitat requirements of fish, in the context of site-specific evaluations, in order to avoid losses of habitats or habitat components that can limit the production of fisheries resources.
5. The principle may be applied on either a fish stock-specific basis, or on a geographic area basis, depending on how particular fisheries are managed and harvested. In cases where a mixture of stocks

is fished, stock-specific application of the principle is important, for example, with most anadromous salmon. If the affected fish stocks and habitats are adjacent to Native communities, it will be important that any habitat replacement be undertaken in the immediate area to avoid any negative effects on Native fishing rights. In other circumstances, such as for resident freshwater species, the principle may be applied on a broader, geographic area basis, rather than on stock-specific management. Local fish habitat management plans, where available, will guide the application of the principle in specific cases.

6. Through the hierarchy of preferences and other procedures explained in Chapter 5, the principle offers flexibility in the search for solutions by both fisheries managers and the proponents of works and undertakings that may threaten fish habitats.
7. In addition to its application to physical disruptions, the principle will apply to proposed industrial and municipal liquid waste discharges that could degrade water quality and the productive capacity of fish habitats. This will be accomplished by careful site selection, combined with mitigation measures that incorporate best practicable technology, to avoid and control adverse effects. Compensation-in-kind is not a feasible option in cases involving liquid waste discharges.
8. Various other techniques, including those used to restore and develop habitat, may be employed by proponents to achieve **no net loss** and the conservation goal. In cases where the productive capacity of habitats is very high, no loss of habitat and no degradation of water quality will be permitted, in accordance with the local fish habitat management plan, wherever available.

2.3 *Second Goal*

FISH HABITAT RESTORATION

Rehabilitate the productive capacity of fish habitats in selected areas where economic or social benefits can be achieved through the fisheries resource.

Interpretation:

1. The productive capacity of habitat may be increased by the restoration of damaged fish habitats. This will complement the preventive approach provided



for in the conservation goal and will contribute to the achievement of **net gain** of habitat for the nation's fisheries resources.

2. The biological components and chemical quality of water will be restored and physically disrupted habitats will be repaired, as described in the implementation strategy on habitat improvement.
3. This goal requires the continuing support of scientific research to discover and test new methods for restoring the productive capacity of fish habitats.

2.4 Third Goal

FISH HABITAT DEVELOPMENT

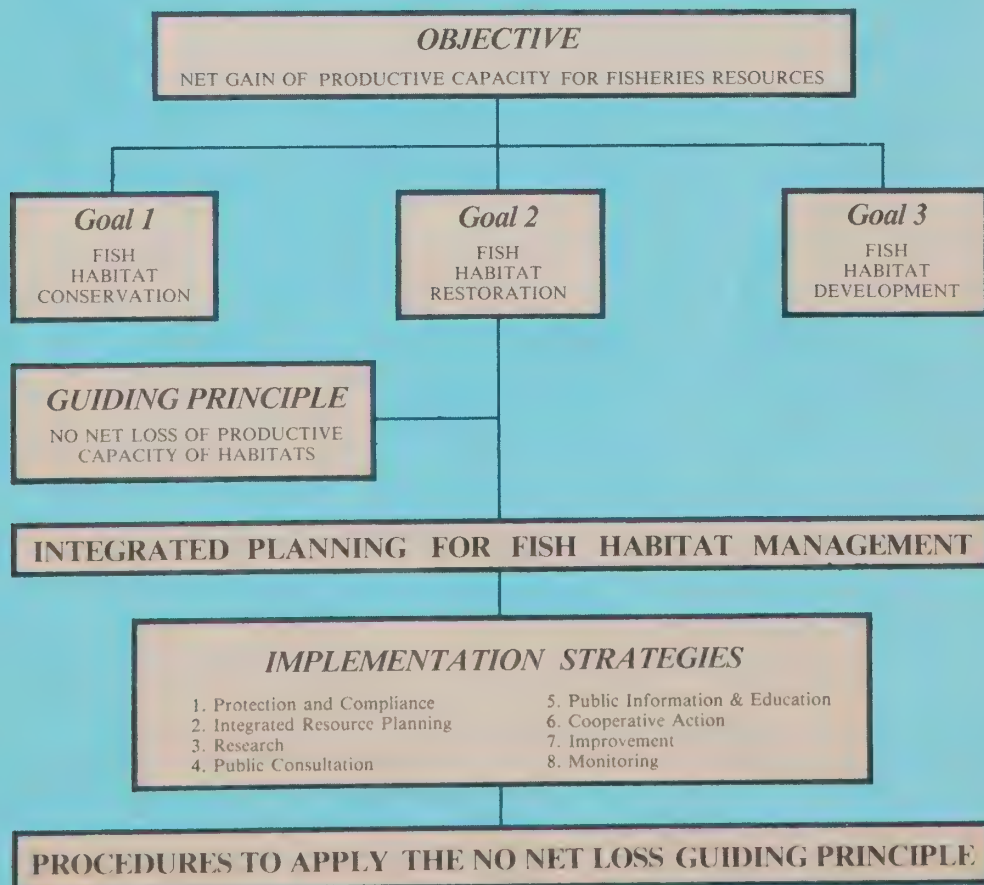
Improve and create fish habitats in selected areas where

the production of fisheries resources can be increased for the social or economic benefit of Canadians.

Interpretation:

1. The productive capacity of habitats may be increased by manipulating naturally occurring chemical, physical, and biological factors, and creating, or providing access to, new spawning, rearing and food producing areas.
2. The objective of this goal is to generate national and regional economic and social benefits for Canadians, and to assist in achieving a **net gain** of habitat for fisheries resources.
3. This goal requires the continuing support of scientific research to discover and test new methods for increasing the productive capacity of fish habitats.

FIGURE 1 POLICY FRAMEWORK FOR FISH HABITAT MANAGEMENT



CHAPTER THREE

INTEGRATED PLANNING FOR FISH HABITAT MANAGEMENT

3.1 *Introduction*

The net gain objective and three supporting goals of this policy will be implemented by a series of strategies that are outlined in the following chapter. In addition to this, improved integration is needed to ensure that the fish habitat plans are implemented with sufficient knowledge of the current and future demands of other natural resource users. This can be accomplished by utilizing existing processes and continuing to develop regularized procedures as required, in close cooperation with provinces, territories and other sectors engaged in resource utilization and management, to consult and plan for future resource management and use.

Furthermore, it will not be sufficient to proceed with policy implementation without fully integrating fish habitat requirements with management objectives for the fisheries resources. This will allow meaningful priorities to be established and will lead to more credible delivery of all elements of the fisheries management program.

This chapter outlines the conceptual approaches that must be tested, implemented and further developed to allow for the fuller integration of fish habitat management in multiple resource management decisions.

3.2 *Integration with Other Resource Sector Objectives*

The Department recognizes that other natural resource interests such as the forest, mining, energy, and agricultural sectors make legitimate demands on

water resources, and that ways must be found to reconcile differences of opinion on their best use. Effective integration of resource sector objectives, including fisheries, will therefore involve cooperation and consultation with other government agencies and natural resource users. For example, fish habitat management plans on a local or regional basis will be developed in such a way as to allow involvement with other stakeholders. In particular, in those jurisdictions where the Department of Fisheries and Oceans manages fisheries directly, it will seek ways to participate in the resource planning and management initiatives of provincial, territorial and municipal governments, other federal departments and other resource users where applicable. In other jurisdictions, integrated planning activities will be consistent with any federal-provincial administrative agreement for habitat management. Examples of initiatives in which the Department has been involved in recent years include (a) planning for multiple land and water use in a number of west coast estuaries and in the Nicola River Basin in British Columbia; (b) planning for port development on the east and west coasts; (c) planning for resource use in Passamoquoddy Bay, New Brunswick; and (d) preparation for Northern Land Use Planning in the territories.

In this way, and in keeping with the integrated resource planning strategy described in the next chapter, fish habitat management plans will be reviewed and discussed, and, where possible, integrated with the objectives and plans of other resource managers and users.



3.3 *Integration of Habitat Needs with Fish Management Objectives*

The essential step of integrating various fish habitat requirements with the fisheries resources they support, must be undertaken and made available in a form that is understood by officials within Fisheries and Oceans, as well as by other agencies and non-government groups. The Department has explored the conceptual basis for this integration and has concluded that fish habitat management area plans should be developed to guide the implementation of this policy.

These plans would be relatively straightforward to implement if fish stock production objectives and allocation plans were available for all of the nation's important fisheries resources. While this information is commonly available from the responsible fisheries agency, or can be developed by that agency, it is not always possible for fisheries managers to either identify discrete fish stocks for allocation purposes or to quantify production targets for stocks and geographic areas.

Given the above factors, the integration of fish habitat requirements with fisheries management objectives to reflect the important supporting role played by the

habitat program could be developed in a variety of ways. The method used will depend on the information available on fish production from particular areas and on the complexity of fish harvesting for mixed stocks. If both the stocks and the fisheries are discrete, it should be possible to derive production targets on which to base habitat management plans that would support the maintenance and growth of those fisheries in particular areas.

A different approach will have to be taken where the fish produced in particular areas contribute to a mixed-stock fishery. In such instances, where stock-specific fish production targets cannot be provided by fisheries managers, estimates of those targets may be based on habitat availability, its quality, any competing pre-emptive uses and historic fish production levels. This will form the basis for the fish habitat management plan for that geographic area.

The plans developed in this way will be used to define those specific areas where this habitat policy will apply and to assist the Department in its efforts to measure program performance. In addition, the habitat management plans will be used as the basis for discussion with other resource managers and users, during the integration process described in the preceding section.

CHAPTER FOUR



IMPLEMENTATION STRATEGIES

4.1 First Strategy

PROTECTION AND COMPLIANCE

Protect fish habitats by administering the Fisheries Act and incorporating fish habitat protection requirements into land and water use activities and projects.

General Interpretation:

1. The procedures for implementing the **no net loss** guiding principle, as described in Chapter 5, will be used as an integral part of this strategy to deal with proposed works and undertakings that could affect the fisheries. In addition, existing habitat problems will be addressed under this strategy.
2. The Department will ensure a uniform and equitable level of compliance with statutes, regulations and policies, as necessary to manage and protect fish habitats in jurisdictions where the federal government manages fisheries. The *Fisheries Act* contains powers to deal with damage to fish habitat, destruction of fish, obstruction of fish passage, necessary flow requirements for fish, the screening of water intakes and the control of deleterious substances. Potential adverse effects on fish habitats are frequently avoided by modifying the plans, designs and operating procedures for projects and activities, and by incorporating mitigation and compensatory measures.
3. The Department will, through collaboration with Environment Canada and the Department of Indian

and Northern Affairs where appropriate, provide timely advice and specific requirements to any person, company or agency engaged in or responsible for work in or near the water, in an effort to control the potential adverse effects on fish habitats of liquid effluent discharges, water withdrawals, physical disturbances, non-point-sources of chemical pollutants such as pesticides, other environmental contaminants, and the introduction of exotic species, predators, parasites and competitors.

4. In jurisdictions where Fisheries and Oceans manages the fisheries and in recognition of the need to avoid cumulative habitat losses caused by small projects, the Department will participate with the provinces, territories and other federal departments in reviewing plans for activities regulated by other levels of government or other departments, in an effort to resolve, through inter-agency cooperation, potential resource conflicts involving fish habitat. In the course of such participation and consultation, while the Department will be prepared to use the habitat provisions of the *Fisheries Act*, it will also be prepared, as a first preference, to agree to solutions involving the use of other federal or provincial legislation, particularly when another agency is acting as the lead, and provided the solutions are consistent with the requirements of the *Act* and this policy.
5. The Department will work closely with Environment Canada in the administration of Section 33 of the *Fisheries Act*, to control effluent discharges and maintain receiving water quality for the fisheries resource. In accordance with the memo-



randum of understanding between the two Departments, Fisheries and Oceans will collaborate with Environment Canada and the provinces and territories in identifying fisheries protection requirements. With respect to administration of Sections 20, 31 and other sections of the *Act*, where aspects of a project involve physical activities that could potentially disrupt fish habitat, the Department will work directly with the proponent, and will provide advice and input to referrals and permits managed by the provinces, territories or other federal agencies.

Proponent Responsibilities:

1. Pursuant to Section 33.1(1) of the *Fisheries Act*, proponents may be asked by the Minister of Fisheries and Oceans or his officials, to provide a statement of information so that the Department can assess the potential impact of existing or proposed works and undertakings on the fisheries resource. Usually such requests would apply to major projects, as defined in this document. The statement may include project-specific information on the resource in question, its supporting habitat and baseline fisheries information required to assess the potential impact of a proposed project. The terms of reference for such information statements should be developed by the proponent, in consultation with professional and technical staff of Fisheries and Oceans. To avoid delays in the assessment of projects, proponents should provide these statements on a timely basis.
2. Proponents may use the results and data of departmental scientific studies on fisheries and oceans to

supplement their project-specific assessments.

3. The cost of mitigating any anticipated damages, and for implementing compensation measures and facilities designed to avoid losses of fish habitat and reductions in the supply of fish, will be the responsibility of proponents. Proponents will also be responsible for the costs of operation and maintenance of any such facilities.
4. The costs to government of activities undertaken to clean up spills of oil and other pollutants will be recovered, under Section 33(10) of the *Act*, from the person(s) who caused the damage, or from special financial security instruments pursuant to the *Oil and Gas Production and Conservation Act*.

Major Project Review Procedures

1. The Department will conduct detailed reviews, frequently and preferably as a participant in a provincial or federal environmental review process, of major proposed industrial undertakings that could potentially harm habitats supporting the fisheries resources.
2. The Department recognizes the importance of timely approvals in the context of minimizing costs, assisting economic growth and providing new employment opportunities. In addition, the Department frequently collaborates closely with officials in other government agencies to discuss findings and review courses of action.
3. For major development projects, a senior level Habitat Policy Steering Committee chaired by an Assistant Deputy Minister of Fisheries and Oceans will provide overall guidance and direction respecting the Department's actions by:
 - (i) ensuring the consistent application of departmental and government policy;
 - (ii) consulting as required with project proponents, senior representatives of other government agencies and other interested parties;
 - (iii) receiving reports, briefings and draft departmental position statements from the Regional Project Committee; and
 - (iv) recommending approvals, restrictions and prohibitions to the Deputy Minister and arranging for delivery of the departmental position to the proponent.
4. A Regional Project Committee reporting through the Regional Director-General to the Habitat Policy Steering Committee will be formed by the Depart-





ment for each major project to carry out the following:

- (i) establish contact at the management and working level with the proponent and with officials of other departments and levels of government;
- (ii) outline the Department's technical information requirements;
- (iii) review project assessments and environmental control proposals;
- (iv) prepare deficiency statements;
- (v) provide conclusions and recommendations on habitat management considerations of the project to the Habitat Policy Steering Committee;
- (vi) prepare draft departmental position statements for transmittal to the Habitat Policy Steering Committee;
- (vii) present information and represent the Department at hearings and inquiries; and
- (viii) carry out follow-up work as required.

Enforcement Policy

1. The Department prefers to prevent damage to habitat and avoid losses to the fisheries resource, rather than to take court action against offenders after the fact. However, when voluntary compliance fails to produce the desired objective, and the *Fisheries Act* is contravened and the habitats supporting fisheries resources are altered, destroyed or degraded, enforcement officers of the Department will carry out enforcement action.
2. Except in emergency situations where immediate, on-the-spot action is required, enforcement officers will, in the interest of fair treatment, make every reasonable effort to consult with the person or persons involved including other regulatory agencies, before enforcement action is taken, in order to obtain as much information as possible about the incident.
3. The Governor-in-Council may make formal orders under Section 33.1(2) to modify, restrict or close works or undertakings. Before recommending such action, however, the Minister of Fisheries and Oceans shall offer to consult with his colleague, the Minister of the Environment, for cases involving deleterious substances, and offer to consult with other federal departments and with the government of any province or territory that may be affected.
4. In critical situations where a violation or potential violation is observed, and the offending party

refuses to discontinue the action causing the violation, the operating equipment may be seized, pursuant to Section 58 of the *Act*.

5. Officials of the Department will investigate fish kills, frequently in collaboration with officials of Environment agencies, and, where possible, ensure that action is taken to initiate mitigative measures and to eliminate the source of the problem. Alleged violators of the *Act* will be prosecuted when the evidence warrants.
6. Pursuant to the Memorandum of Understanding between Fisheries and Oceans and Environment Canada on Section 33 of the *Act* regional working agreements between the two Departments will provide for coordinated enforcement of Section 33 violations.
7. In the event that discharges of deleterious substances are detected that present an immediate threat to fisheries, and no other government agency has initiated action, officials of Fisheries and Oceans will intervene directly by contacting the proponent and immediately advising appropriate regulatory agencies on required actions. Where necessary, the prohibition powers of Section 33 will be used to stop the discharge as quickly as possible and to arrange for clean-up, if feasible. The Department will proceed with legal charges if the evidence warrants.
8. In situations where the Department becomes aware of a violation or potential violation that presents irreparable harm to fisheries resources, a court injunction may be requested under Section 31(4) and 33(9) to halt the work or undertaking.
9. Private citizens may initiate prosecutions under the habitat provisions of the *Act*. The Department will examine the circumstances surrounding each litigation and make recommendations to the Department of Justice concerning the public interest and the technical relevance of the case to the habitat provisions of the *Act*.
10. In cases where the courts have ruled a defendant guilty and where the damage to fish habitat can be corrected or remedied, officials of the Department or the Crown prosecutor may speak to sentence, urging the court to order restorative action.

Training and Guidelines

1. Technical and resource management training programs are provided for enforcement officers whose responsibilities include habitat management. Professional and technical habitat staff of the Depart-



ment will continue to be offered training in subjects such as habitat evaluation procedures, **no net loss** procedures, and integrated resource planning, including instruction on the activities of other resource industries such as forestry and mining.

2. As part of its implementation of this policy, Fisheries and Oceans will expand the preparation and publication of guidelines, in an effort to improve the Department's ability to administer the habitat provisions of the *Fisheries Act*, and to provide for consistent national application. Guidelines are currently available in some regions of Canada for subjects such as road construction, dredging and forestry. National guidelines exist for various regulations under Section 33 of the *Act*, including pulp and paper, oil refining, metal mining and food processing. The following additional national guidelines are under consideration:

1. A Guide to Achieving **no net loss**.
2. Assessment Procedures for Evaluating Fish Habitat.
3. Restoration and Development Guidelines.
4. Integrated Habitat Management Planning.

4.2 Second Strategy

INTEGRATED RESOURCE PLANNING

Participate in and encourage resource planning and management to incorporate fish habitat priorities into air, land and water use plans.

Interpretation:

1. Where it is responsible for managing the fisheries resource, the Department will seek opportunities to resolve multiple resource use conflicts affecting the fisheries by participating in resource planning and management with provincial, territorial, municipal, other federal government agencies and other resource users (where applicable), and by recognizing the mandate and objectives of all participants.
2. The Department will plan for the conservation, restoration and development of the fisheries resource and its supporting habitat, in support of its fisheries management objectives.
3. The Department is prepared to seek ways to accommodate the concerns of other resource interests,

wherever feasible.

4. The Department is prepared to enter into agreements with provincial, territorial, municipal and other federal agencies to achieve mutually agreeable resource planning and management objectives and to carry out joint programs such as the development of habitat inventories.

4.3 Third Strategy

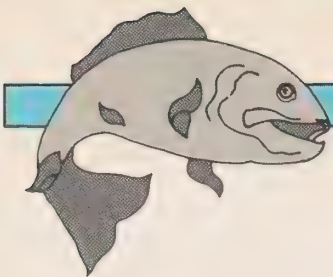
SCIENTIFIC RESEARCH

Conduct scientific research to provide the information and technology necessary for the conservation, restoration and development of fish habitats.

Interpretation:

1. The Department will continue to carry out a broad program of basic scientific research on Canada's fisheries, part of which will be directed toward providing the knowledge, data and information required to:
 - (a) assess the relative importance of specific habitats as a factor contributing to fish production;
 - (b) assess the effects of human-induced chemical, physical and biological changes on fisheries resources and the habitats that support them;
 - (c) determine how adverse effects on fish habitat may be mitigated and establish criteria for





the continued natural production and safe consumption of fish;

- (d) develop and refine techniques to restore degraded and develop new habitats;
 - (e) refine our understanding of the factors that control the productive capacity of natural habitats and how to measure those factors; and
 - (f) develop improved methods of evaluating the economic and social worth of fish habitats.
2. The Department will encourage and participate in cooperative habitat-related research programs with other federal government departments, provincial and territorial agencies, and industry groups and associations to improve knowledge in areas of common interest, such as instream flow requirements, fish passage problems, chemical or biological contamination problems, forestry and energy developments.
 3. The Department will continue to participate in and cooperate with international scientific organizations whose mandate relates to fisheries and the aquatic environment.
 4. Habitat-related research priorities of the Department will be established through consultative arrangements with fishery managers, habitat managers, and where appropriate, industrial interests, government agencies, and the general public.
 5. The Department's habitat-related research findings will be made public and reported in scientific and technical publications, and through a variety of public forums.

4.4 Fourth Strategy

PUBLIC CONSULTATION

Consult the public on major or controversial fish habitat issues and on the development of new policies and legislation for fish habitat management.

Interpretation:

1. Of the thousands of projects and activities examined by Fisheries and Oceans across Canada each year, few will constitute a sufficiently high risk to fisheries or be of such high public concern as to require any special process for public consultation, other than normal consultation with the proponent and any other interested parties.
2. Where it is determined by the Minister that an issue requires formal public consultation, the Depart-

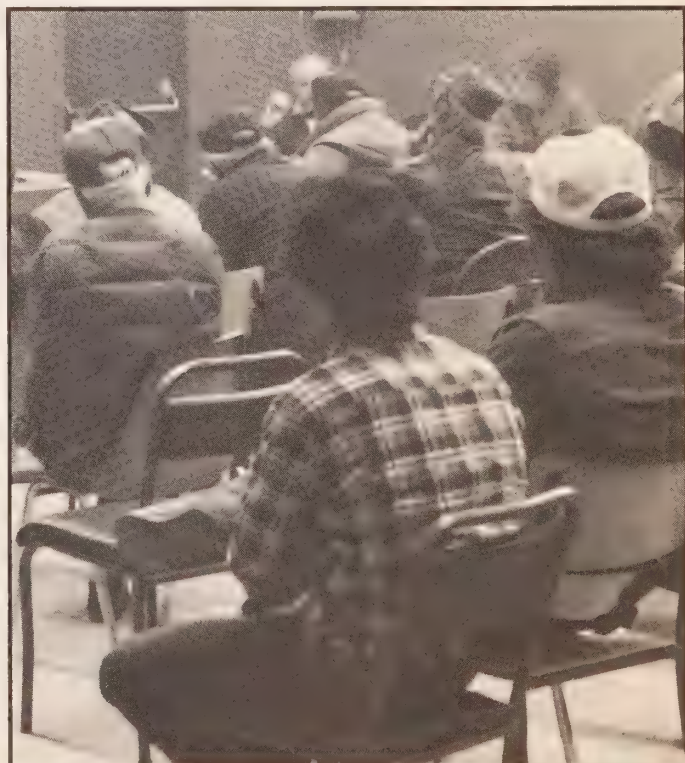
ment's first preference will be to participate fully in the established review procedures of other federal departments or provincial governments, for example, Environment or Energy agencies, provided the terms of reference for the review are satisfactory to the Minister.

3. In cases where other established public review processes would not normally apply to a project, and the Minister of Fisheries and Oceans determines that one is required for his purposes, he may initiate such a process. For this purpose, the following options will be considered in order of preference (a) joint sponsorship of an independent public review with another Minister, federal or provincial; or (b) a federal independent public review under the *Inquiries Act*.
4. The Minister will consider all views expressed in arriving at a decision.

4.5 Fifth Strategy

PUBLIC INFORMATION AND EDUCATION

Promote public awareness in the conservation, restoration and development of fish habitats.





Interpretation:

1. Strong public sentiment in support of habitat conservation, restoration and development will reduce the likelihood that habitat abuse will occur.
2. The Department will foster increased public awareness of the importance of fish habitat and the threats to it by continuing to publish and distribute balanced and objective information material and technical guidelines; to produce films and other education materials for use by the media and the public, particularly in schools; and to sponsor conferences, seminars, workshops and symposia.
3. The Department will cooperate with private organizations to encourage distribution of interpretive material on fish habitat management and to promote habitat awareness.

4.6. Sixth Strategy

COOPERATIVE ACTION

Encourage and support involvement by government agencies, public interest groups and the private sector to conserve, restore and develop fish habitats.

Interpretation:

1. Community involvement in habitat-related activities will be encouraged so as to instill positive attitudes and local pride in the fisheries resource and

its habitat, and to raise the level of understanding about the complex relationship between the resource and its supporting habitats. Employment and economic benefits can also be realized by involving local communities in habitat-related work.

2. The Department will, through inter-agency cooperative arrangements, participate in project referral systems and in established environmental and energy assessment and review procedures for the evaluation of projects and to support the habitat conservation goal.
3. The implementation of the objective and goals of this policy will be assisted by the development of cooperative arrangements, such as national or regional committees, foundations or boards involving industry, other non-government groups, other government agencies and departmental representatives.
4. The Department will encourage the development of approaches whereby interested companies and associations would use their own staff to protect fish habitat, in accordance with departmental guidelines and fish habitat management plans, and subject to departmental surveillance and audit.

4.7 Seventh Strategy

HABITAT IMPROVEMENT

Initiate projects and provide advice to other interested groups to restore and develop fish habitats, in support of the net gain objective.

Interpretation:

1. Under this strategy, habitats may be restored by rehabilitating streams; by eliminating or controlling exotic species, predators, parasites, and competitors; by removing man-made and storm-related physical barriers and other initiatives; and, in cooperation with Environment Canada, requiring the installation and operation of suitable waste treatment technology.
2. The Department will support habitat restoration and development projects using departmental and other federal government funds, when such funds are available, and where resulting economic and employment benefits can be achieved through the fisheries resource.
3. Where it manages the fisheries directly, the Department will provide advice and guidance to commu-



nity and conservation groups that wish to undertake habitat restoration and development projects; financial support also may be provided, depending on the availability of public funds for this purpose.

4.8 Eighth Strategy

HABITAT MONITORING

Evaluate the effectiveness of decisions taken and techniques used to conserve, restore and develop fish habitats.

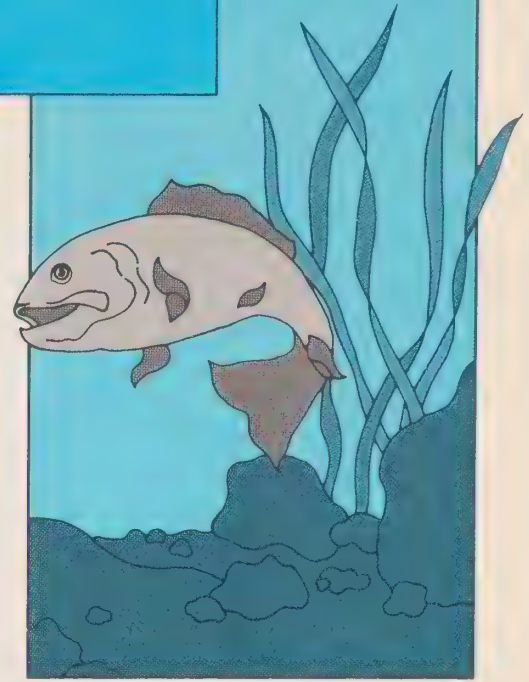
Interpretation:

1. Recognizing limitations in the ability to predict changes to fish habitats arising from proposed actions, the Department will rely increasingly on the results of monitoring the effects, both during and, for a prescribed period, after development. In this way the effectiveness of departmentally prescribed conditions of approval, intended to maintain the productive capacity of fish habitats, will be evaluated and new knowledge will be acquired.
2. Proponents may be required to undertake follow-up monitoring studies on the effectiveness of habitat mitigation and compensation prescriptions as a condition of project approval by the Department, and subject to prior discussion and agreement with the proponent on the scope and schedule for monitoring.
3. The results of monitoring studies will be used by the Department as a basis for discussion with proponents, on the possible need for improvements in mitigation and compensation measures, immediately or as soon as practical after the facility or activity commences operations. The Department will identify, as a condition of approval, the possible need for follow-up corrective actions by proponents.
4. Studies designed to detect chemical hazard problems, to determine baseline conditions and the effects of change, and to establish environmental trends, may be undertaken by the Department as part of its in-house programs of scientific research, inventory and other investigations, such as those on the effects of acid rain.
5. The Department will address the problems associated with the chemical contamination of fish habitat and fisheries resources through the examination of inventory information on chemicals in use or proposed for use. Samples of fish, other aquatic biota, water and sediments will be analyzed to determine levels of specific chemicals and their by-products.
6. The Department will carry out project-related evaluations and effects monitoring on a selected basis, in support of the policy goals of habitat conservation, restoration and development.
7. The Department will consult with Environment Canada respecting that agency's compliance monitoring plans.



CHAPTER FIVE

PROCEDURES TO APPLY THE NO NET LOSS PRINCIPLE



The guiding principle of **no net loss** signals a renewed effort by the Department of Fisheries and Oceans to ensure that the social and economic benefits, generated for Canadians by the productive capacity of fish habitats and the fisheries resources they support, are maintained over time. Application of the guiding principle would not mean that all proposed works and undertakings in or near water would have to be stopped, or that unreasonable demands would be imposed on their design, construction and operation. For example, liquid wastes would continue to be discharged into Canada's fisheries waters after suitable treatment to control harmful effects; marinas and port developments would proceed using acceptable locations and designs; and mineral exploitation and many land and water use practices would take place under environmental controls designed to protect fish habitats. As a matter of good practice however, each development, whether major or minor, will be evaluated in the planning phase, using an existing process when possible, to determine if its impact on fish habitat would reduce the capability of that habitat to sustain fisheries resources. Should it be determined that the proposed development would result in a loss of productive fish habitat, the Department would review the measures required to achieve **no net loss**, pursuant to the hierarchy of preferences as follows.

5.1 *Hierarchy of Preferences*

Fisheries management objectives and plans, where available, will be a major consideration for the Department in deciding where to apply this guiding prin-

ciple and what offsetting proposals would be acceptable to achieve **no net loss**. For example, in some circumstances it may be possible for the Department to meet its management objectives by applying the principle on a fish stock-specific basis. The preferences that follow refer to those circumstances. In other cases, such as for the management of species that are resident in lakes, the principle may be applied on the basis of achieving **no net loss** within a geographic area, as described in paragraph five of Section 2.2.1.

When the fishery resource and its supporting habitat are put at risk by a proposed development project or activity, the Department will be guided by the following hierarchy of preferences to achieve **no net loss** of productive capacity.

1. For the application of the **no net loss** principle, the first preference of the Department will be to maintain without disruption the natural productive capacity of the habitat(s) in question by avoiding any loss or harmful alteration at the site of the proposed project or activity. This will be especially important where local communities rely on specific fisheries stocks. It may be achieved by encouraging the proponent to redesign the project, to select an alternate site, or to mitigate potential damages using other reliable techniques, such as by installing adequate pollution control equipment.
2. Only after it proves impossible or impractical to maintain the same level of habitat productive capacity using the approaches outlined above would the Department accede to the exploration of compensatory options. First of all, the possibilities for like-



for-like compensation should be assessed; that is replacing natural habitat at or near the site. Should this not be feasible, then secondly it might be possible to consider either moving off-site with the replacement habitat, or increasing the productivity of existing habitat for the affected stock, if reliable techniques are available. Compensation options will not be possible as a means of dealing with chemical pollution and contamination problems; reliable control techniques must be installed and operated to mitigate such problems from the outset.

3. In those rare cases where it is not technically feasible to avoid potential damage to habitats, or to compensate for the habitat itself, the Department would consider proposals to compensate in the form of artificial production to supplement the fishery resource, provided the following conditions are met:
 - (a) such a solution will be in accordance with the objectives established in the local fisheries management plan, assuming one is available;
 - (b) genetic and other biological factors are satisfied;
and,
 - (c) practical and proven techniques are available.
4. The costs associated with providing facilities or undertaking measures to mitigate and compensate for potential damages to the fisheries resource, will be the responsibility of proponents, as will the costs to operate and maintain such facilities.

5.2 Procedural Steps for No Net Loss

To apply the no net loss guiding principle and achieve the habitat conservation goal, the Department will, through inter-agency cooperative arrangements, use established project referral systems and environmental and energy assessment and review procedures, wherever possible. No new regulatory procedures are contemplated by Fisheries and Oceans to implement this principle. The Department will generally conduct its reviews in accordance with the following six steps (Figure 2), recognizing that more time and effort will be required to complete Steps II, III and V for larger projects.

Step I – Notification: Information and requests for departmental approval of works or undertakings in or near the water will come to the attention of the Department in the following ways: (a) through established inter-agency referral systems, (b) inquiries from the proponent, (c) inquiries from concerned citizens, (d) public announcement of the project and (e) in response to requests from the Department of Fisheries and Oceans

to proponents for information about their projects. The majority of notifications come to the Department's attention through inter-agency referral mechanisms. These mechanisms have proved to be very effective in the past and the Department intends to continue using them.

Step II – Examination: Once information on a proposal is received, the Department undertakes a detailed examination of the potential implications of the work or undertaking to the fisheries resource. For chemical hazards, information is needed on the physico-chemical properties of the suspect chemical and its by-products, its toxicity and pathology to fish, and the routes and rates of entry into the natural environment. For minor projects involving physical activities (e.g., salmon stream crossings) which disrupt important fish habitat, Fishery Officers and fish habitat management staff will assist operators to the extent feasible in identifying the biological impacts of the work or undertaking and will make a biological assessment of the requirements necessary to meet fisheries operational objectives. For major projects, obtaining and presenting relevant information on the project or the chemical compounds involved, and on the fish habitat that is likely to be affected, is the responsibility of the proponent under Section 33.1(1) of the *Act*. This step will take varying amounts of time to complete, depending on the size of the project, and it will be in the interest of proponents to provide assessments on a timely basis. Staff of the Department will assess the information obtained and if necessary visit the site and undertake studies to complete their assessments.

As part of the examination step, the hierarchy of preferences (outlined earlier in this chapter) will be used to guide both the Department and proponents; the amount of detail and time required will depend again on the size of the work or undertaking, and its potential impact on fish habitats.

Step III – Public Consultation: The Department recognizes the need to provide opportunities for public review and input to decisions on developments that have broad social, economic or environmental implications. More information on the Department's approach to public consultation may be found in section 4.4 of this policy.

In the case of major development projects, where avoidance of habitat loss or damage is not feasible, and where mitigation and compensation measures cannot be implemented to fully avoid losses to the productive capacity of habitats, and particularly where special regulations to allow the project to proceed are contemplated



FIGURE 2 PROCEDURAL STEPS TO ACHIEVE NO NET LOSS

STEP 1

NOTIFICATION
BY PROPONENT
AND GOVERNMENTAL
SOURCES

INFORMATION RECEIVED
ON PROJECT

ASSESS POTENTIAL IMPACT
ON FISHERIES AND HABITAT

ADDITIONAL INFORMATION
(IF REQUIRED)
(SECTION 33.1 (1))

STEP II

EXAMINATION
BY FISHERIES
& OCEANS, OFTEN
IN CONSULTATION
WITH OTHER
AGENCIES

ASSESS ALTERNATIVE SITING OR OTHER
OPTIONS AND DISCUSS WITH PROPONENT

ASSESS MITIGATION OPTIONS

ASSESS COMPENSATION OPTIONS
(if compensation determined feasible)

MAJOR POTENTIAL
IMPACT

MINOR POTENTIAL
IMPACT

STEP III

CONSULTATION

CONSULT WITH PUBLIC,
PROponent AND OTHER
GOVERNMENT AGENCIES

CONSULT WITH
PROponent AND
INTERESTED PARTIES

STEP IV

DECISION

PROCEED
AS
PROPOSED

(Section 33.1 (2))

PROCEED
WITH
CONDITIONS

REJECT
PROPOSAL

STEP V

AUDIT

MONITOR COMPLIANCE
AND EFFECTIVENESS

APPEAL

STEP VI

ENFORCEMENT

PROBLEM CORRECTION/PROSECUTION (IF REQUIRED)



under the *Fisheries Act*, no decision to proceed with the project in question will be taken by the Minister of Fisheries and Oceans without public consultation and a thorough review and assessment of all factors.

Step IV – Decision: Following its examination of the proposed work or undertaking and the results of any public consultation, the Department will decide whether the project is likely to result in a net loss of productive habitat capacity. If a loss is likely, the Department will then have to decide if the proponent's plans to mitigate and compensate are acceptable. In cases involving chemical hazards, adverse effects must be controlled by mitigation measures to avoid potential damage to the productive capacity of fish habitats. For those cases, compensation in-kind is not an acceptable option.

The Department will give due consideration to the economic benefits and costs associated with the development of alternative solutions to achieve **no net loss** of productive capacity.

Depending on the outcome of the Department's deliberations, it could decide directly, or through a recommendation to the Minister in cases involving major development projects; as follows:

- i) to permit the proposal to proceed as proposed (no harm expected to the productive capacity of fish habitat);
- ii) to permit the proposal to proceed with fixed conditions (often with respect to schedule, methods, equipment, environmental control and mitigation measures, compensation, follow-up monitoring, possible need for corrective adjustments by proponent after start-up, the training of company personnel, and other conditions); or
- iii) to reject the proposal (potential losses to the fisheries judged unacceptable).

Any changes to the original conditions of approval will be negotiated between the Department and the proponent.

In cases where the Department has to advise a proponent that the work or undertaking is unacceptable, the Department will present information to support the following conclusions:

- i) that despite the best efforts to control adverse effects, unacceptable net loss of habitat will take place if the project proceeds;
- ii) that this potential loss of habitat will cause demonstrable harm to fisheries resources; or
- iii) that there is an unacceptable level of uncertainty involved in forecasting the potential effects on fish habitats and the fisheries resources.

Appeals:

- (1) Should any person feel aggrieved by a habitat-related decision made by departmental staff, that person may at any time request a review of the decision by senior management levels within the Department, including Regional Directors-General, the Deputy Minister or by the Minister of Fisheries and Oceans.
- (2) Should any proponent or interested party feel aggrieved by the decision-making process an appeal may be made to senior management levels within the Department or to the Minister.
- (3) In the event of an unresolved dispute regarding a major development project, the Minister may agree to refer the project to an independent body or panel for study and recommendations.

Step V – Audit: As explained in section 4.7 of this policy, the Department will ensure that compliance monitoring and effectiveness evaluation are undertaken.

Step VI – Enforcement: The Department will enforce the legislation for which the Minister of Fisheries and Oceans is accountable, using trained personnel, as explained in section 4.1.



ANNEX

THE LEGISLATIVE MANDATE

Under the *Constitution Act* (1982), the federal government has legislative responsibility for Canada's fisheries. The Minister of Fisheries and Oceans has been assigned responsibility for sea coast and inland fisheries, marine science and administration of the *Fisheries Act*. A key component of the Minister's overall responsibility for fisheries management is the protection of fish and fish habitat from disruptive and destructive activities. Fisheries and oceanographic research provide, among their outputs, the knowledge required for sound fish habitat management.

The habitat protection provisions of the *Fisheries Act* provide the Minister of Fisheries and Oceans with the following powers (see the departmental publication of "Canada's Fish Habitat Law" for more information):

- Section 20:** The authority to require the construction, maintenance and operation of fish passage facilities at obstructions in rivers; to require financial support for fish hatchery establishments constructed and operated to maintain runs of migratory fish; to remove unused obstructions to fish passage; and to require a sufficient flow of water at all times below an obstruction for the safety of fish and the flooding of spawning grounds.
- Section 28:** The authority to require the installation and maintenance of screens or guards to prevent the passage of fish into water intakes, ditches, canals and channels.
- Section 30:** The authority to prohibit the destruction of fish by any means other than fishing.
- Section 31:** The authority to modify, restrict or prohibit any work or undertaking which is likely to result in the harmful alteration, disruption or destruction of fish habitat, a term that is defined in subsection 31(5) of the *Act*.
- Section 33:** Comprehensive powers to protect fish and fish habitat from the discharge of deleterious substances; to request plans for developments that may affect fish; to develop regulations and to modify, restrict or prohibit certain works or undertakings.

Other Sections: Definitions, penalties and additional powers are provided in Sections 31(3), 33.1(9), 33.4(1), 34, 52, 53, 55 and 56, among others.

Fishery Regulations specific to provinces and territories are made pursuant to the *Fisheries Act*, and some of these contain habitat protection sections. The Department is also responsible for administration of the *Great Lakes Fisheries Convention Act*, which provides for Canada-U.S. rehabilitation of the Great Lakes.

GLOSSARY

Canadian Fisheries Waters "All waters in the fishing zones of Canada, all waters in the territorial sea of Canada and all internal waters of Canada." (*Fisheries Act*, sec. 2)

Compensation for Loss The replacement of natural habitat, increase in the productivity of existing habitat, or maintenance of fish production by artificial means in circumstances dictated by social and economic conditions, where mitigation techniques and other measures are not adequate to maintain habitats for Canada's fisheries resources.

Conservation (of habitats) The planned management of human activities that might affect fish habitats to prevent destruction and subsequent loss of fisheries benefits.

Development (of habitats) The creation of fish habitat and the enhancement or other improvement (such as flow regulation, nutrient modification, provision of access to spawning and rearing areas, etc.) applied to any type of fish habitat to provide better conditions for production and maintenance of the fisheries resource.

Fish "includes shellfish, crustaceans, marine animals, marine plants and the eggs, spawn, spat and juvenile stages of fish, shellfish, crustaceans and marine animals." (*Fisheries Act*, sec. 2).

Fish Habitats "Spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes." (*Fisheries Act*, sec. 31.5).

Fish Habitat Management Program Those activities, legislative responsibilities and policies administered by the Department of Fisheries and Oceans for the purpose of conserving, restoring and developing the productive capacity of habitats for the fisheries resources.

Fish Habitat Management Plan A plan prepared for a region or a specific geographic area of a region



which includes an outline of the Department's requirements for conserving, restoring and developing fish habitat to meet fisheries production objectives and for use as the basis for consultation in integrated resource planning.

Fisheries Resources Fish stocks or populations that sustain commercial, recreational or native fishing activities of benefit to Canadians.

Integrated Resource Planning The process whereby federal, provincial, territorial and municipal resource management agencies consult each other and private sector interests to plan for the future use of natural resources including forests, minerals, fish, land, water, wildlife and other resources.

Major Projects Those works, undertakings and activities that could potentially have, or be perceived to have, significant negative impacts on the habitats supporting Canada's important fisheries resources. Examples include: large-scale aerial biocide spraying of forest and agricultural lands; deep-draft marine terminals; hydroelectric dams and diversions; integrated mining operations; offshore oil and gas exploration and development; large industrial and municipal waste discharges; large pipelines, rail lines, roads and transmission lines; large forest harvesting operations; large dredging operations; and other similar projects.

Minor Projects Those works, undertakings and activities which would not normally have, or be perceived to have, serious irreversible biological effects that could not be mitigated, on the habitats supporting Canada's fisheries resources. Examples include:

most stream crossings, culvert installations, and other stream alterations; most wharf and breakwater construction and repairs; most individual forest harvesting operations; small dredging projects; small foreshore modifications; and other similar projects.

Mitigation Actions taken during the planning, design, construction and operation of works and undertakings to alleviate potential adverse effects on the productive capacity of fish habitats.

Net Gain An increase in the productive capacity of habitats for selected fisheries brought about by determined government and public efforts to conserve, restore and develop habitats.

No Net Loss A working principle by which the department strives to balance unavoidable habitat losses with habitat replacement on a project-by-project basis so that further reductions to Canada's fisheries resources due to habitat loss or damage may be prevented.

Productive capacity The maximum natural capability of habitats to produce healthy fish, safe for human consumption, or to support or produce aquatic organisms upon which fish depend.

Protection (of habitats) Prescribing guidelines and conditions, and enforcing laws for the purpose of preventing the harmful alteration, destruction or disruption of fish habitat.

Restoration (of habitats) The treatment or clean-up of fish habitat that has been altered, disrupted or degraded for the purpose of increasing its capability to sustain a productive fisheries resource.

